

What is claimed is:

1. A printer for producing rolls of wallpaper, comprising:

a cabinet in which is located a media path which extends from a media loading area to a winding area;

5 a printhead located in the media path;

a processor which accepts operator inputs from one or more input devices which are used to configure the printer for producing a particular roll; and

the winding area adapted to removably retain a core and wind onto it, wallpaper produced by the printer wherein,

10 the length and design of the roll are determined by the operator inputs.

2. A printer as claimed in claim 1, further comprising:

an internal dryer, the dryer located between the printhead and the winding area and adapted to blow hot air onto a printed media web.

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3. A printer as claimed in claim 1, further comprising:

a cutting mechanism located between the printhead and the winding area and adapted to divide with a transverse cut, a media web in accordance with instructions provided by the processor.

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4. A printer as claimed in claim 1, further comprising:

an input device for capturing data relating to a print job;

the data being transmitted by the device to the processor;

the processor using the data to establish a configuration for the printer.

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5. A printer as claimed in claim 4, wherein:

the input device is a bar code scanner.

6. A printer as claimed in claim 1, further comprising:

on a front exterior surface of the cabinet, a video display for displaying information about wallpaper that the printer may print, including images of an operator selected pattern.

7. A printer as claimed in claim 7, wherein:

5 the video display is a touchscreen which can receive operator selections for use by the processor.

8. A printer as claimed in claim 1, wherein:

the printhead is mounted on a rail on which it slides into and out of a printing position across the path.

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9. A printer as claimed in claim 8, wherein:

the printhead is a page width inkjet style multi-color printhead which is supplied by separate ink reservoirs,

15 the reservoirs connected to the printhead by a number of ink supply tubes, there being a tube disconnect coupling between the reservoirs and the printhead.

10. A printer as claimed in claim 9, further comprising:

an air supply and a tube for bringing a supply of air to the printhead which supply prevents media from

20 sticking to the printhead.

11. A printer as claimed in claim 10, further comprising:

a capper motor, the capper motor driving a capping device;

the capping device sealing the printhead when not in use in order to prevent contamination from entering the
25 printheads.

12. A printer as claimed in claim 14, wherein:

the capper device further comprises a blotter, which moves into and out of position and which is used for absorbing ink fired from the printheads.

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13. A printer as claimed in claim 9, further comprising:

one or more rail microadjusters for accurately adjusting a gap between the printhead and the media onto which it is printing.

5 14. A printer as claimed in claim 1, wherein:

the path comprises a generally straight path.

15. A printer as claimed in claim 1, further comprising:

a media supply canister, one or more of which may be inserted into and removed from the loading area, a

10 canister containing a roll of blank wallpaper media.

16. A printer as claimed in claim 2, further comprising:

a door which covers an opening into a lower compartment of the dryer;

the door being moveable from a closed position which covers the opening, to an open position in which the

15 media passes through the opening into the lower compartment and out of the compartment, also through the opening.

17. A printer as claimed in claim 1, further comprising:

a slitting mechanism having a pair of rotating end plates between which extend a number of transverse shafts,

20 each shaft having one or more cutters, the end plates rotatable so that any shaft can be selected, or that no shaft be selected for slitting the media web.

18. A printer as claimed in claim 17, wherein:

the slitting mechanism is located between the printhead and the winding area and adapted to longitudinally slit

25 a media web in accordance with instructions provided by the processor.

19. A printer as claimed in claim 1, further comprising:

a well, external to the cabinet and adjacent to an exit slot;

the well having at each end, spindles for aligning, retaining and removing a core, and for rotating the core

30 according to instructions provided by the processor.

20. A printer as claimed in claim 1, further comprising:

a pre-heater platen located under the path and before the printhead.

5 21. A printer as claimed in claim 1 wherein the wallpaper is printed by the printhead at a rate exceeding 0.02 square meters per second (775 square feet per hour).

22. A printer as claimed in claim 1 wherein the wallpaper is printed by the printhead at a rate exceeding 0.1 square meters per second (3875 square feet per hour).

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23. A printer as claimed in claim 1 wherein the wallpaper is printed by the printhead at a rate exceeding 0.2 square meters per second (7750 square feet per hour).

24. A printer as claimed in claim 1 wherein the printhead has more than 7680 nozzles.

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25. A printer as claimed in claim 1 wherein the printhead has more than 20,000 nozzles.

26. A printer as claimed in claim 1 wherein the printhead has more than 100,000 nozzles.

20 27. A printer as claimed in claim 1 wherein the printhead has more than 250,000 nozzles.

28. A printer as claimed in claim 1 wherein the printhead prints ink drops with a volume of less than 5 picoliters.

25 29. A printer as claimed in claim 1 wherein the printhead prints ink drops with a volume of less than 3 picoliters.

30. A printer as claimed in claim 1 wherein the printhead prints ink drops with a volume of less than 1.5 picoliters.

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31. A printer as claimed in claim 1 wherein it is self contained and comprises:

a cabinet in which is located a media path which extends from a media cartridge loading area to a winding area;

a full width digital color printhead located in the media path;

5 a processor which accepts operator inputs which are used to configure the printer for producing a particular roll; and

the winding area adapted to removably retain a core and wind onto it, wallpaper produced by the printer.

32. A printer as claimed in claim 1 adapted for use with a media cartridge, the media cartridge comprising:

10 a case in which a roll of blank media may be deployed;

the case having two halves, hinged together, an area between the two halves, when closed, defining a media supply slot; and

the case having internally and adjacent to the slot, a pair of rollers, at least one of the rollers being a driven roller which is supported at each end, by the case, for rotation by an external motor.

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33. A printer as claimed in claim 1 adapted for use with a consumer tote for a roll of wallpaper, the tote comprising:

a disposable exterior in which is formed a main access flap and a pair of core access openings; and

the tote having an interior in which is located a disposable core which is aligned with the access openings.

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34. A printer as claimed in claim 1 including a transverse cutter, the transverse cutter comprising:

a chassis having end plates;

the end plates being separated to allow a web of media to pass between them;

the end plates supporting between them a cutting blade; and

25 the blade supported at each end to perform a cutting motion which begins on one side of the web and finishes on an opposite side of the web.

35. A printer as claimed in claim 1 including a slitting mechanism, the slitting mechanism comprising:

a chassis having end plates;

the end plates being separated by a transverse portion of the chassis to allow a web of media to pass between them;

one or more rotating slitting shafts extending between the end plates, each shaft having one or more slitters arranged along its length, each slitter having a cutting edge; and

- 5 the slitting mechanism selectively engageable to either enter or not enter a path followed by the web according to an input provided by an operator of the printer.

36. A printer as claimed in claim 1 including a dryer for a printer such as a wallpaper printer, the dryer comprising:

- 10 a compartment with a top opening for receiving a media web fed from the printer; a source of heated air located above the top opening for blowing heated air into the opening to dry printing on the media web.

37. A printer as claimed in claim 1 adapted to print wallpaper onto a web of media using a method

- 15 comprising the steps of:
 - utilizing an on-demand printer comprising a cabinet in which is located a media path which extends from a media loading area to a winding area, there being a printhead located in the media path, a processor which accepts operator inputs from one or more input devices;
 - using one or more input devices which communicate with the processor to capture data from an operator
- 20 regarding a specification for an operator's requirements;
- using the processor to operatively control the printer according to the data; and
- printing a single roll of wallpaper, on demand, according to a selected pattern.

38. A printer as claimed in claim 1 for use in a method for operating a wallpaper printing business, the

- 25 method comprising the steps of:
 - utilizing an on-demand printer comprising a cabinet in which is located a media path which extends from a media loading area to a printhead and from the printhead to a dispensing slot;
 - using one or more printer input devices which communicate with a processor to capture data regarding one or more customer's requirements;
- 30 the data comprising at least a customer selected pattern;

printing a roll of wallpaper, onto a web of blank media, on demand, according to the selected pattern; and charging a customer for the roll.

39. A printer as claimed in claim 1 for use in a method for operating a wallpaper printing franchise,

5 comprising the steps of:

providing to franchisees, an on-demand printer comprising a cabinet in which is located a media path which extends from a media loading area to a printhead and from the printhead to a dispensing slot;

the printer having one or more printer input devices which communicate with a processor to capture data regarding one or more customer requirements, the data comprising at least a customer selected pattern;

10 providing the franchisee with a collection of patterns in a digital storage medium that can be read by the printer;

enabling the franchisee to print a roll of wallpaper, onto a web of blank media, on demand, according to the selected pattern; and

obtaining or attempting to obtain a fee from the franchisee.

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40. A printer as claimed in claim 1 further comprising:

a frame in which is located a media path which extends from a media loading area to a winding area;

a printhead located across the media path;

one or more input devices for capturing operator instructions;

20 a processor which accepts operator inputs which are used to configure the printer for producing a particular roll; and

the winding area adapted to removably retain a core and wind onto it, wallpaper produced by the printer.

41. A printer as claimed in claim 1 for use in a method for printing wallpaper onto a web of media, the

25 method comprising the steps of:

utilizing an on-demand printer comprising a cabinet in which is located a media path, there being a full width printhead located across the media path, there being a processor which accepts operator inputs from one or more input devices and which controls the printer;

using one or more input devices which communicate with the processor to capture data from an operator

30 regarding a specification;

running the printer according to the data;
printing a single roll of wallpaper, on demand, according to a selected pattern and configuration;
changing the pattern according to a new datum from an operator; and
then printing a new roll onto the same web.

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42. A printer as claimed in claim 1 for use in a method for drying a moving web of media in a printer such as a wallpaper printer, the method comprising the steps of:

loading the web in a path that traverses a compartment in a dryer within the printer, the compartment having an opening across the top;

10 allowing the moving web to descend into the compartment, as required; and
blowing heated air from above the opening.

43. A printer as claimed in claim 1 for use in a method of supplying a media web to a wallpaper printer, comprising the steps of:

15 opening a reusable case;
placing into the case a core onto which has been located a supply roll of blank wallpaper media;
supporting the core for rotation within the case;
leading a free edge of the roll between a pair of rollers and past an edge of the open case; then
with the rollers located within the case and on either side of the web, closing the case and loading it into a
20 printer.

44. A printer as claimed in claim 1 further comprising a printhead assembly which prints onto a moving web that follows a path, the assembly comprising:

a full width printhead located across the path;

25 the printhead comprising a color printhead which is at least as wide as the web;
the printhead being supplied with a number of different inks which are remote from the printhead and which supply the printhead through tubes.

45. A printer as claimed in claim 1 further comprising:

30 a housing in which is located a media path which extends from a blank media intake to a wallpaper exit slot;

a multi-color roll width removable printhead located in the housing and across the media path; the printhead being supplied by separate ink reservoirs, the reservoirs connected to the printhead by an ink supply harness, there being a disconnect coupling between the reservoirs and the printhead; one or more input devices for capturing operator instructions;

5 a processor which accepts operator inputs which are used to configure the printer for producing a particular roll.

46. A printer as claimed in claim 1 adapted for use with a consumer tote for a roll of wallpaper, the tote comprising:

10 a disposable exterior in which is formed a main access flap and a pair of core access openings; the tote having an interior in which is located a disposable core which is aligned with the access openings; both openings exposing a moulded coupling, one coupling attached to each end of the core, at least one of the couplings being a driven coupling and adapted to engage a driving spindle that rotates the core.

15 47. A printer as claimed in claim 1 further comprising a removable printhead assembly which prints onto a moving web, the assembly comprising:

a full width stationary printhead located on a rail along which it slides for service and removal; a number of replaceable ink reservoirs which supply the printhead with different inks; the printhead comprising a color printhead which is at least as wide as the web; and

20 the printhead being supplied with the different inks through tubes which can be disconnected so the printhead may be removed.

48. A printer as claimed in claim 1 wherein the printer is a self threading printer for producing rolls of wallpaper, comprising:

25 a media loading area adapted to support a media cartridge in a position so that a media supply slot of the cartridge is closely adjacent to a pilot guide;

a cabinet housing a media path which extends from the pilot guide to a printed media dispensing slot;

a printhead located across the media path;

a processor which accepts operator inputs which are used to configure the printer for producing a particular

30 roll;

a motor within the cabinet for advancing a media web out of the media cartridge; and
one or more other motors adapted to urge the media along the path and out of the slot.

49. A printer as claimed in claim 1 for producing wallpaper on-demand via a method comprising the steps of:

5 utilizing an on-demand printer comprising a cabinet in which is located a media path which passes a printhead on the way to a dispensing slot;

selecting a pattern and a configuration;

using one or more printer input devices which communicate with a processor to input the pattern and the configuration; and

10 printing a roll of wallpaper, onto a web of blank media, on demand, according to the selected pattern and configuration.